



## Ten Things Your Coil Vendor Never Told You

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Below are ten things that your previous coil supplier never told you!

(1) A.R.I. only randomly selects certain size coils to test throughout a full coil line. All other performances are interpolated between the tested sizes. There is plenty of room for performance differences between competing companies. Not all of these differences are honest differences, and there is more room to cheat on performance than most people realize. A.R.I. should be a guideline, but there's more to selecting a supplier than the A.R.I. listing.

(2) 1/2" O.D. tube diameter coils are generally less expensive than 5/8" O.D. coils. There is less lbs. of copper in a 1/2" tube coil than in the same size 5/8" coil. As a result, the coil costs less!

(3) There is a huge saving to be had when building multiple coils of the same size. This means that fins, tubes and casing can all be cut at the same time for all coils, and everybody gets to save a lot of money.

(4) Nobody really understands how to size coils anymore. Most people who work for coil manufacturers just plug in a computer program and spit back the performance to you. This usually means that if you have a special set of performance criteria, you probably have no shot of getting help from the manufacturer. Very few people understand that there are tradeoffs in the selection coil process and you have to give up something to get something.

(5) The real secret in coil replacement is understanding why the coil failed in the first place. It's a completely different process to replace a coil that has been in service for 20 years and has "died" of old age than it is to replace a coil that has failed in 2 years. When you understand why a coil failed, you can build the coil differently so that you don't duplicate the problem.

(6) Coatings on coils don't last forever. It's just like the paint on your car. When a small rust spot appears, you know that it's going to get larger over time. The metal rusts from the inside out. Coil coatings are no different, and they all eventually fail over time. It's a cost-effective method of solving a problem, but it's not the same as changing the materials of the coil. Changing materials is easily the best way to solve the problem, but probably the most costly.

(7) You can circuit water coils lots of different ways, and not just the standard patterns that big companies offer. When you're trying to reach a particular pressure drop, you really can be creative to circuit the coil. Of course, most big companies have to build coils in large production quantities, so a lot of their flexibility is taken away.

(8) You can't substitute steam for hot water on most hot water coils, unless it's

low-pressure steam less the 5 PSIG. Hot water coils are circuited differently and will trap condensate in the coil. In addition, wall thickness and the brazing process is different. Some companies attempt to use these coils interchangeably. Don't do it!

(9) Many coil manufacturers are not full line suppliers of coils. They don't have the tooling for certain types of coils and they try to steer you into what they can build effectively. You have to stick with somebody who you know can build any type of coil that you require.

(10) Deliveries on coils often depend on how much OEM business a company received the month before. Coil shops need to be full and if they're not, coil manufacturers will often take high volume, low profit margin OEM business to fill up the shop. The 4 weeks delivery that you were promised has just jumped out to 8 to 10 weeks, and nobody really cares. You would like to avoid these manufacturers at all costs. Their real business is OEM and they just use you to fill in the gaps. Buying a coil from these guys is usually a painful experience.

All of the above really have no connection with each other, but enable you to buy coils in a more efficient manner. The more you know, the better decisions you can make!



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